

Fig. 4. ♀, ventral view of thorax and abdomen.

Fig. 5. Var. *pumila*, var. n., ♀, dorsal view of abdomen (to slightly larger scale than the preceding figures).

Nycteribia (Acrocholidia) euvesta (Speiser).

Fig. 6. ♀, dorsal view of abdomen.

Fig. 7. ♀, ventral view of thorax and abdomen.

Fig. 8. ♀, anal segment of Speiser's original type (dried), more highly magnified.

Fig. 9. ♀, subgenital plate of original type (dried), to same scale as fig. 8.

Cyclopodia ferrarii (Rondani).

Fig. 10. ♂, dorsal view of abdomen.

Fig. 11. ♂, ventral view of abdomen.

Fig. 12. ♂, apex of claspers, more highly magnified.

Fig. 13. ♀, dorsal view of abdomen.

Fig. 14. ♀, dorsal view of anal segment and of the chitinous plate in front of it, more highly magnified.

Fig. 15. ♀, ventral view of abdomen.

Cyclopodia roylei (Westw.).

Fig. 16. ♀, dorsal view of abdomen.

Fig. 17. ♀, ventral view of abdomen.

Eucampsipodia hyrtli (Kolenati).

Fig. 18. ♀, dorsal view of much contracted abdomen.

Fig. 19. ♀, ventral view of much distended abdomen.

Nycteribia (Listropodia) parilis, Walker.

Fig. 20. ♂, dorsal view of abdomen.

Fig. 21. ♂, ventral view of abdomen.

Fig. 22. ♀, dorsal view of abdomen.

Fig. 23. ♀, ventral view of thorax and abdomen.

XXVIII.—*New Species of Paralastor, Sauss. (Hymenoptera, Fam. Eumenidæ), collected by Mr. R. E. Turner in S.W. Australia.* By R. C. L. PERKINS, M.A., D.Sc., F.Z.S.

THE first five forms of *Paralastor* here described, which were collected by Mr. R. E. Turner at Yallingup, S.W. Australia, from November to January 1913, are almost identical in colour-pattern, the yellow bands and spots differing a little in depth of colour in different species.

All have the following markings in both sexes:—Two spots on the front of the pronotum, one each side on the mesopleura beneath the tegulæ, a pair on the scutellum, and an apical band on the first two abdominal segments yellow,

never whitish nor conspicuously parti-coloured, but sometimes tending to orange.

The first abdominal band is in most cases narrow, occupying less than half of the dorsal (*i. e.* non-declivus) portion of the segment; the second is always narrow and never occupies more than $\frac{1}{5}$ or $\frac{1}{6}$ of the length of the second segment.

With the exception of the ♀ of one species, which has the propodeum marked with yellow, I think all the forms would fall in the section 27-34 of my dichotomous table of *Paralastor* recently sent for publication to the Zoological Society of London.

It is certain that most of these new forms differ little, if at all, structurally from some of those previously described; but as they differ very greatly in superficial appearance, and intermediates are not known, for the present they are better kept apart.

It is almost certain that in Hymenoptera, as in Lepidoptera, a species may assume a totally different appearance in different localities, as it comes in contact with other species of distinct pattern or colour, while specifically it is really unchanged. The material at present collected in Australia is too sparse to allow one to make a satisfactory study of this interesting subject, especially as from large areas no collections at all are available.

The five forms in question may easily be distinguished by the aid of the following table:—

Face with a median yellow spot between the antennæ; clypeus not deeply but distinctly emarginate	1.
Face without this spot; clypeus truncate or hardly visibly emarginate	3.
1. Tegulæ black	<i>auster.</i>
Tegulæ pale, yellow or testaceous, more or less marked with yellow	2.
2. Apical margin of the clypeus distinctly raised, forming a thickened rim; ♂ tibie dark; propodeum of ♀ with yellow spots	<i>neochromus.</i>
Apical margin of the clypeus not distinctly raised; ♂ tibie pale or rufescent, sometimes more or less marked with yellow; ♀ propodeum immaculate	<i>letus, Perkins.</i>
3. Tegulæ conspicuously marked with yellow; second abdominal segment seen in profile with short erect hairs	<i>æquifasciatus.</i>
Tegulæ dark, at most brownish or testaceous in part; second abdominal segment with thin clothing of long erect hairs all over. (♂ antennæ 12-jointed.)	<i>subpunctulatus.</i>

Paralastor auster, sp. n.

The clypeus of the ♂ is yellow*, of the ♀ wholly black, the medio-frontal spot is elongate, the scutellar spots very widely separated; scape of the antennæ entirely black in both sexes. First abdominal band narrow, but bearing numerous punctures. Legs, including the tarsi, black or nearly so.

Clypeus lightly but distinctly emarginate; in the ♀ the margin is distinctly raised. Antennæ of ♂ 11-jointed. Head and thorax densely and distinctly punctured, so closely as to be subrugose. Second ventral segment above the sulcature strongly angularly prominent or tuberculate. The apical ventral segments of the ♂, seen from the side, all clothed with short erect hairs. The folded wings with distinct violaceous iridescence along the dark costal portion.

Length 8.5–10 mm. The measurement is taken from the front of the head to the apex of the second abdominal segment in all species.

Hab. Yallingup, S.W. Australia, November, Dec.–Jan. 1913 (*R. E. Turner*), 2 ♂, 1 ♀. British Museum.

Paralastor letus, Perkins.

Clypeus of ♂ yellow, of ♀ black, with two yellow basal spots, sometimes connected. Scape of ♂ yellow in front, of ♀ generally black, sometimes with a yellow streak. Medio-frontal spot ovate or roundish, not strongly elongate as in the preceding. First abdominal band rarely occupying half the surface of the posterior non-declivous portion of the segment, but bearing many conspicuous punctures. Tegulæ testaceous and yellow, the scutellar spots separated by less than the width of one of them. Tibiæ and tarsi uniformly ferruginous, sometimes with yellow markings.

Clypeus very distinctly emarginate, but not bordered at the apex, in the ♂ with obscure and copious fine punctures, in the ♀ shining, either with sparse or very irregular larger punctures, and with other finer ones.

Puncturation of head, thorax, &c. much as in *P. parca* &c., the general structure also resembling that species. Erect hairs of the second dorsal abdominal segment of only moderate length, some longer ones at the base. Apical ventral segment of the ♂ somewhat shining, with conspicuous longish erect hairs (in lateral aspect) similar to those on the preceding

* The general pattern of colour, common to this and the four following species, is given at the beginning of this paper.

segments. Antennæ ♂ 11-jointed, the apical ones very small and sunk in the eighth.

Length, ♀, 9-11 mm.

The yellow bands become of a darker shade basally, but are not conspicuously bicolorous, as in *P. vulpinus* &c.

This species closely resembles *P. parca*, but, apart from colour, it lacks the very long hairs of the second abdominal segment. I originally described it from 2 ♂♂ from Fremantle, from which the single ♂ from Yallingup differs in small details.

Hab. Yallingup, S.W. Australia, Nov.-Jan. (*Turner*), 1 ♂, 4 ♀. British Museum.

Paralastor subpunctulatus, sp. n.

Clypeus of ♂ yellow, of ♀ black with a transverse, basal, large yellow spot, which is usually, but not always, lunulate. Scape of antennæ in both sexes black, the medio-frontal spot absent. Tegulæ dark, sometimes with a testaceous spot or suffused with brown, but without yellow markings. Scutellar spots generally larger in the ♀ than in the ♂. Legs generally black or dark.

Clypeus in ♂ either truncate or very feebly emarginate at the apex, in the ♀ truncate, shining. Antennæ of ♂ with twelve distinct joints, the four apical ones curved into a hook, and, if straightened out, together as long as the eighth. In sculpture of head and thorax &c. and in general structure this form differs very little from *P. punctulatus*, Sauss., of Tasmania and the mountains of New South Wales, but is very distinct in appearance by the yellow (not nearly white) bands and spots, and the first abdominal band is considerably wider. The puncturation of its basal abdominal segment is also evidently more dense and serves to distinguish the two. In some details of structure and sculpture both vary in exactly the same manner.

Length 10-12 mm.

Hab. Yallingup, S.W. Australia (*Turner*), 6 ♂ and 5 ♀, Nov.-Jan.

Most of the specimens are considerably abraded, but they bear a long thin pubescence as in *P. punctulatus*.

Paralastor neochromus, sp. n.

Clypeus of ♂ yellow, with a median black spot extending to the apical margin, so that the yellow colour in the middle line is very slightly interrupted there, the raised margin

itself also black. In the ♀ the clypeus is black, with two large, curved, lateral, yellow spots, nearly meeting at the base and not reaching to the apical margin. Probably the colour varies. Scape of ♂ yellow in front, in ♀ with a yellow line. Medio-frontal spot ovate. Scutellar spots nearly meeting, or, at least, not widely separated. In the ♀ there are two small, widely separated, postscutellar spots, and much larger ones on the propodeum. Tegulæ shining, for the most part with very fine and indefinite puncturation, more or less brown or testaceous, with a yellow spot at the hind angle. Size of *P. eriurgus* and *argentifrons*.

This species appears to me to represent in its own locality the *P. eriurgus* of Queensland and *P. argentifrons* of Adelaide, Victoria, &c., from which it hardly differs in structure, though entirely different in appearance from either.

Hab. Yallingup, S.W. Australia, Dec.—Jan. 1913, ♂ & ♀ (*Turner*).

Paralastor æquifasciatus, sp. n.

Female with the clypeus black, with a transverse basal yellow spot or band not reaching the lateral margins and angulately emarginate in front, sometimes divided into two separate spots. No yellow spot between the antennæ. Tegulæ with yellow marking. Scutellar spots rather large, but widely separated.

Clypeus shining, the puncturation largish but not at all close, the apex nearly straightly truncate. Head and thorax with ordinarily coarse and copious punctures, the post-scutellum unarmed. Tegulæ shining, for a large part with very faint surface-sculpture or hardly visible minute puncturation. The abdominal bands are simple and nearly of equal width; that of the first segment bears many conspicuous punctures, but does not occupy half the length of the segment in dorsal aspect. Second ventral segment angulately produced in the middle above the truncation, or tuberculate there, but varying in the strength of the tuberculation. Hairs of head and thorax of about equal length. Wings shining fusco-hyaline, darker along the costa.

Length 12–14 mm.

This species may be placed with *P. carinatus*, Sm., and its allies.

Hab. Yallingup, S.W. Australia, ♂ ♀ ♀ in December (*Turner*).

Paralastor eutretus, sp. n.

Female black, the pronotum, tegulæ, two spots on the scutellum posteriorly, most of the postscutellum, the tibiæ and tarsi, the first abdominal segment (excepting its basal declivous portion), an apical band on the second occupying about the apical sixth of its length, as well as a medio-frontal spot and a small one behind each eye red or ferruginous.

Clypeus very slightly emarginate, but the lateral teeth subacute, rather evenly and largely punctured, the punctures shallow. Pronotum truncate and evidently margined in front. Head and thorax with short hairs, very closely, evenly, subrugosely punctured. Wings subhyaline, darker along the costa. Basal abdominal segment extremely densely punctured; second coarsely, closely, and nearly evenly punctured all over, narrow, long, subparallel-sided; beneath, behind the sulcature, well raised above the basal part, but not extremely strongly so, and not at all produced in the middle at the top of the truncation, there being no trace of a prominent tubercle. Dorsally the second segment is strongly convex longitudinally towards the base, but not greatly raised.

This small narrow species may perhaps be best placed next to *P. despectus*, P. It in many respects resembles *P. imitator* structurally, but the tegulæ lack the very coarse punctures, and over a large area they are smooth and shining and almost without puncturation on this area.

Length about 8 mm.

Hab. Yallingup, S.W. Australia, 1 ♀ in December (Turner).

Obs. When describing *P. debilitatus* I made the remark that the unique example bore a MSS. name, *A. pusillus*, Sauss. This was an error, it having been labelled *A. pusillusculus* by Saussure without being described.

XXIX.—*New South-American Rodents.*

By OLDFIELD THOMAS.

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Sciurus griseogena klagesi, subsp. n.

A pale long-haired highland form of *griseogena*.

Fur long and very soft; hairs of back about 16 mm. in